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ABSTRACT

Concern about academic cheating in the schools has been persistently expressed in the scholarly and mass media literature for several decades. Much of this concern derives from studies that show cheating as a widespread problem in American schools, behavior that clearly runs counter to the ethic of intellectual honesty. In this study cognitions were examined by a questionnaire method for comparable 11th-grade students in Costa Rica (N=114), Germany (N=121), and the United States (N=87) for the purpose of describing similarities and differences associated with culture, achievement status, and gender. Most results indicated that German students differed substantially from both Costa Rican and U.S. students in cheating problem perceptions, critical attributes of cheating, causal factors in cheating, and beliefs about effective ways to control cheating in the school, although some important similarities across all three samples were observed. Achievement and gender effects were less substantial, but uniform across cultures. This study has provided both original findings and provocative cues for continued cross-cultural study. Consistent differences in the way adolescents think about academic cheating have been observed, with German students most clearly distinct from their U.S. and Costa Rican counterparts. Further research is recommended, with special attention to school type, administrative policy, and goal structures to clarify the relationship between school and ethics in academic development. (Author/ABL)

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Adolescents' Cognitions and Attributions for Academic Cheating: A Cross-National Study

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Abstract

Cognitions about academic cheating were examined by a questionnaire method for comparable eleventh-grade students in Costa Rica (N = 114), Germany (N = 121), and the United States (N = 87) for the purpose of describing similarities and differences associated with culture, achievement status, and gender. Most results indicated that German students differed substantially from both Costa Rican and U.S. students in cheating problem perceptions, critical attributes of cheating, causal factors in cheating, and beliefs about effective ways to control cheating in the school, although some important similarities across all three samples were observed. Achievement and gender effects were less substantial, but uniform across cultures. Results are interpreted mostly in terms of educational system differences with particular emphasis upon competitive and cooperative reward structures.

Adolescents' Cognitions and Attributions for Academic Cheating: A Cross-National Study

Concern about academic cheating in the schools has been persistently expressed in the scholarly and mass media literature for several decades (Bushway & Nash, 1977; Deutsch, 1988; Seattle Times, 1990). Much of this concern derives from studies that show cheating as a widespread problem in American schools--behavior that clearly runs counter to the ethic of intellectual honesty (Power, Higgins, & Kohlberg, 1989). Disturbing reports about adult cheating behavior in academic, corporate, and government settings add to this concern (Coughlin, 1988; Leo, 1988; Vartabedian, 1990). To date, however, the great bulk of studies has involved college students, marked by questions about faculty views on student cheating (e.g., Boyer, 1989), the personality characteristics of cheaters (e.g., Haines et al., 1986), and situational factors in cheating (e.g., Houston, 1986), with considerably less attention to secondary school populations. Some shift in the direction of studies about cheating is expressed in recent age or grade level comparisons of cognitive aspects of cheating (Evans & Craig, 1990a), but no cross-national comparative work involving school-age children or adolescents and cheating has appeared in the published literature. Consequently, the present study was conceived to broaden the empirical base for cheating research to examine possible cultural similarities and differences with the expectation that results may help to inform psychology and education

about potential links between cultural and educational system variations and adolescents' views on cheating. This expectation is further reinforced by related work with American students and teachers (Evans & Craig, 1990b), suggesting that a broadened data base about cheating cognitions may assist our understanding of cheating behavior in the context of cultural values and moral development.

Specifically, this study inaugurated a search for possible cultural variations by examining four aspects of cheating: student awareness and evaluation of the cheating problem, declarative knowledge about academic cheating as expressed in classroom behavior, causal attributions for cheating, and efficacy beliefs about cheating control and prevention strategies. As a beginning step in this search, three contrasting cultures--United States, West Germany, and Costa Rica--were selected on the basis of a two-fold rationale.

First, these nations represent relevant distinctions in educational and socioeconomic development. The United States has been undergoing change in the economic base for national productivity in recent years, and its system of mass secondary education has been subject to strong pressure for reform, a process complicated by conflicting undercurrents about the academic, social, and custodial purposes of schooling (Sarason, 1983; Tomlinson & Walberg, 1986). West Germany, having shown phenomenal economic recovery from WWII, presently shows an increasingly differentiated educational system (Hamilton, 1990; Mietzel, Ruessmann-Stoehr, & Mason, 1987), but at the

Gymnasium level that nation boasts a long tradition of academic rigor for students who have compared quite favorably on school achievement criteria with their counterparts in other Western countries (Comber & Keeves, 1973). Costa Rica is widely recognized as among the leading advancing countries, having placed a strong emphasis upon education for economic and cultural development, although higher education is not yet a reality for most students (Baldares, 1985; Caamano, 1977). That education in Costa Rica takes place in a context of Catholicism was thought to enhance the relevance of that culture for a study with moral-ethical overtones.

A second point of rationale for this study is that, excepting cross-national studies of achievement, comparative studies of adolescents in schools are relatively rare, especially for European and Central American students. For example, of the 247 articles that appeared in the Journal of Cross Cultural Psychology from 1970 to 1979, 514 cultural groups were included; yet only ten (2%) involved urban or rural Central American samples, and only 15 (3%) represented Northern European groups (Lonner, 1980). Moreover, of the total number of articles during that period, only ten (2.9%) dealt with educational variables, and only one article was authored by a German. Since 1979, the rate of published cross-national research about schooling has remained low. A notable exception pertinent to the present study was Enker's (1987) investigation of attitudes about cheating, although its focus was limited to preservice teachers in the

U.S. and Israel. In fact, to our knowledge only one study of cheating has been conducted in the German-speaking countries (Hanisch, 1990) and none in Latin American countries. Conceptually relevant studies about moral development--particularly concepts of justice and fairness (e.g., Berman, Murphy-Berman, & Singhy, 1985)--are somewhat more visible, but again no subjects from Germany or Costa Rica are shown in these tangential studies. Thus, it was reasoned that the present samples were exemplary for seeking fuller representation of subjects and scholars from the international community.

As a final point of background perspective, extension of the present line of research to contrasting cultures provided a rich opportunity to examine further group difference variables germane to academic cheating: achievement level and gender. Findings from the U.S. studies about these variables of cheating are somewhat inconclusive. Of the few studies concerned with school achievement status and cheating, lower cheating rates among higher achieving students are reported (Antion & Michael, 1983; Kanfer & Duerfelt, 1968), but the evidence is weak. Until recently, however, no study has probed for achievement-related differences in cognitions about cheating, a probe limited thus far to U.S. students (Evans & Craig, 1990a). Similarly, student gender was accommodated here to expand upon previous work on male and female orientations to academic integrity. The history of cheating research is marked by findings of no substantive gender differences in cheating on the one hand (Black,

1962; Evans & Craig, 1990a; Hartshorne & May, 1928; McLaughlin & Ross, 1989) to evidence that males are more inclined toward cheating on the other (Schab, 1969; Karlins, Michaels, Freilinger, & Walker, 1989). Additionally, a gender difference in motivation for cheating has been suggested by recent work (Calabrese & Cochran, 1990). Hence, student gender was incorporated into the present study with an expectation that findings may enlighten this growing cluster of provocative findings.

In sum, the core issue for this study was how comparative data about cognitive aspects of cheating may reveal uniformities or consistencies across secondary school-age populations in contrasting cultural settings thereby to constitute a test of generality in an educationally significant moral-ethical domain.

Method

Subjects

During 1989, teacher colleagues in U.S., Costa Rica, and West Germany academic settings were contacted to assist in specific sample selection and data collection. This assistance resulted in a total of 322 11th-grade, urban secondary school subjects for participation in the study. U.S. students (N=87) were from a public high school in a district populated mostly by a middle-class White citizenry. Costa Rican students (N=114) were from an academic-type public school serving a similar socioeconomic population base in that Central American country. The West German sample (N=121) was constituted from

four public schools at the Gymnasium level in a socioeconomic context analogous to the other two cultural groups. Thus, to the fullest extent possible, equivalent samples were drawn in relation to conceptually and methodologically relevant variables of community setting, type and size of school and grade level.

With these conditions met, an identical data collection procedure followed in all three settings. All subjects completed a language-appropriate version of an established Likert-type questionnaire on a voluntary and anonymous basis under the supervision of their respective classroom teachers who were prepared specifically for the task.

Questionnaire

The instrument utilized for this study was a 109-item questionnaire built with cues from attribution theory (Weiner, 1974; Wimer & Kelly, 1982), past empirical research on cheating (Bushway & Nash, 1977), and extensive interviews with American high school and college students (N=32) by the senior author. Its guiding semantic property was founded on consensual dictionary definitions of cheating as deceit by trickery or fraudulent practice that yields unfair advantages to the cheater. Applied to academic settings, cheating behavior typically involves fraudulent misrepresentation of one's performance in activities such as test taking, grade altering, and falsifying class papers or projects.

The full developmental history, reliability, and previous use of this questionnaire are described elsewhere (Evans & Craig, 1990a,

1990b). However, it is essential here to emphasize that the instrument was designed to measure four related aspects of thinking about academic cheating, with each aspect expressed in separate scales. Scale I (16 items) encompassed cheating problem awareness and perceived seriousness. Scale II (24 items) involved a subject's knowledge about specifics of cheating, including behavioral expressions of cheating such as copying another person's work for personal credit. Scale III (37 items) concerned a subject's causal attributions--i.e., beliefs about reasons. Attributions were grouped into three subordinate categories or subscales: (a) teacher personality and demeanor (9 items); (b) classroom climate and course workload variables (9 items); and (c) characteristics and circumstances of individual students who may cheat (19 items). Scale IV (32 items) addressed a subject's beliefs about the efficacy of various strategies designed to prevent or reduce cheating. Scales I and III were based on a five-point continuum ranging from 5 = strongly agree to 1 = strongly disagree. Scales II and IV consisted of items on a similar four-point continuum that eliminated the neutral or undecided position to force more definitive judgments about probability of truth (Scale II) or efficacy (Scale IV). Reliability estimates for the original English language version (Cronbach's alphas) derived from past samples of American adolescents ranged from .71 to .90 for individual subscales with a coefficient of .89 for the total item set.

The questionnaire was adapted and field tested for the Costa Rica and West German samples accommodating their native languages of Spanish and German. Adaptation was accomplished according to the backtranslation, decentering procedure described and recommended by Brislin (1980), using bilinguals whose native languages coincided with the subjects' home countries. Few reconciliations were required, thanks to the involvement in translation activity by small teams of confederates in each country. Three items judged as questionable for applicability to the German educational system were qualified in the German version of the questionnaire and adjusted in the interpretation of results. Scale reliabilities (Cronbach's alphas) were similar for both translated versions, ranging from .72 to .83, and thereby compared favorably to the English version.

Data Analysis

As indicated above questionnaires were administered to students by their teachers during 1989, completion of which included a face sheet for subjects to indicate their gender (male or female) and achievement level as symbolized by school marks (high, medium, low). All forms were retrieved by the investigators for scoring and data analysis by computer-based procedures. The relative absence of low school marks reported by subjects in all three countries prompted a collapse of the three achievement levels into two categories--higher and lower cumulative achievement. The higher achievement group reported A's and B's, while the lower achievement group reported mainly C's. The

result was a three-way factorial design for this study, with culture, achievement level, and gender as independent variables: 3 (Culture: U.S., Costa Rica, and Germany) x 2 (Overall cumulative school marks: higher or lower) x 2 (Gender: male or female). Scores from the four scales composing the questionnaire were the dependent variables. Accordingly, six main, separate ANOVAs were conducted: one each for data from Scales I, II, III-A, III-B, III-C, and IV. Smaller item clusters from within these scales were further analyzed based on inspection of item percentage response figures that were calculated from a conventional item analysis procedure.

Results

Findings are described first from the analysis of cultural effects, followed by student achievement effects, and finally gender effects. The analysis was conducted on each of the four major scales, and selected content oriented combinations of individual items. Information is provided in an ANOVA table for cultural effects (Table 1) and a table of means for achievement effects (Table 2). Percentage figures are provided to detail the nature of cultural differences, specifically in terms of representative item responses (Table 3).

Insert Tables 1, 2, and 3 about here

Cultural Effects

Table 1 presents the cultural effects revealed by ANOVA on all scales and subunits within scales for which a significant cultural effect was noted. Each scale and subscale is described as to content of items and the nature of the responses that resulted in significant differences.

Scale 1 included 16 items concerned with the perceived occurrence of cheating and consequences of cheating. Mean scores across the three cultures ranged from 44.32 (German) to 51.68 (Costa Rican), with higher scores indicating greater acknowledgment of cheating. Further to clarify response patterns, the scale was then reconfigured to form two subunits: first, a combination of items 1-5 to constitute Subscale IA, dealing with the seriousness of cheating at three school organization levels; and second, items 13 to 16 to form Subscale IE, concerned with student response to cheating. For items 1-5 (Subscale IA), means ranged from 14.07 (German) to 18.30 (Costa Rican), with the higher scores indicating strong agreement that students are aware of cheating and take some action to control cheating in the classroom. Combined items 13-16 (Subscale IE) yielded mean scores cross the three cultures ranging from 8.91 (German) to 10.69 (Costa Rican). Scheffé range tests conducted on the cultural effects data confirmed that effects observed with Scale I items uniformly resulted from the German students' lower scores. This indicated an apparent denial by most Germans concerning the occurrence of cheating. In contrast, the

correspondingly higher rate of endorsement by Costa Rican and American students indicated perception of more serious cheating problems in school. Figure 1 provides graphic detail for problem perception differences across the three samples. Table 3 illustrates remarkable differences for specific items from the total questionnaire.

Insert Figure 1 about here

Scale II included 24 items concerning declarative knowledge about cheating. Means across the three cultural groups varied from a low of 61.57 (German) to a high of 78.06 (American). Higher scores indicated greater acknowledgment of a given behavior as cheating. For further analysis, Scale II items were sorted into behaviors relating to cooperative cheating and behaviors denoting strictly personal or individual cheating behavior. Cultural effects were noted for each of these subgroupings. German students' acknowledged fewer behaviors as cheating, whether cooperative or individual in nature. The American student mean response (34.61) was higher than both Costa Rican (32.15) and German (27.21) means on items about cooperative cheating behavior.

Among the most striking differentials (percentage agreement or disagreement) concerned items about plagiarism (e.g., quoting verbatim without citation) and passive cheating (e.g., letting a peer copy from one's own paper and taking advantage of teacher errors in scoring, marking, or grading to secure higher evaluation than would otherwise

result). On both these counts, German students were less likely to classify such behavior as cheating than were the other two groups. Regardless, the concept of plagiarism (quoting verbatim and paraphrasing others' ideas without credited sources) was less well understood by all groups than was actual examination or test-related cheating.

Scale III took form in three subscales related to attributions for cheating to three domain characteristics: instructor characteristics (IIIA); classroom characteristics (IIIB); and student characteristics (IIIC). All three subscales showed cultural effects. Subscale IIIA means ranged from 34.03 (German) to 36.99 (American); subscale IIIB means varied from 31.51 (German) to 36.01 (American); and for subscale IIIC, the low mean was 59.52 (German) while the high mean was 70.20 (American). Again, Scheffé tests on all three subscales confirmed that German students showed low attributions for cheating to the three domain characteristics, while their American and Costa Rican counterparts strongly endorsed these characteristics as important factors in the occurrence of cheating. Further differentiations on Subscale IIIC were instructive as well. Subunit IIICP involved 12 items related to student characteristics considered as more personal or intrinsic--e.g., high in risk taking, mistrustful, and low self-esteem. Means ranged from a low of 39.13 (German) to a high of 44.70 (Costa Rican). Subunit IIICC was found by seven items concerning circumstantial or extrinsic variables in which the student

functions--e.g., having friends who cheat and parents who apply pressure for good grades. Means for this subunit were further revealing, ranging from 20.39 (German) to 25.50 (American).

Scale IV contained 32 items that describe teacher strategies or tactics to prevent or reduce the incidence of cheating. Higher scores indicated stronger agreement that such strategies would be effective for this purpose. Again, means for the German students were lower than both the American or Costa Rican student response means, indicating that the Germans were less impressed with the effect, real or potential, of the various strategies offered. Means ranged from 73.57 (German) to 88.38 (Costa Rican).

Although the foregoing results illuminate pervasive cultural contrasts, some important similarities warrant mention here because they suggest common ideas and attitudes about cheating among adolescents regardless of cultural context. Several noteworthy similarities were expressed in terms of strong majority agreement across all cultural groups for all four scales, but especially Scales II and III. Representative items from these two scales are presented in Table 4 for illustrative purposes are self-explanatory.

Insert Table 4 about here

Further comment about both similarities and differences is reserved for the discussion section to follow. Meanwhile the ANOVA

results for culture can be summarized thus: virtually all of the collective scales and subunits showed a significant cultural effect. The Scheffé range test verified that the significant differences are best understood as a result of the observed lower response by German students, with American and Costa Rican student responses higher and similar. Costa Ricans showed slightly stronger agreement with survey items related to incidence of cheating, declarative knowledge of cheating, and prevention of cheating; the American responses were stronger with respect to attribution of cheating to various sources, both external and internal.

Achievement Effects

Next, consider student achievement status, the second major classification variable. Students reporting higher grades of A or B or their equivalent were ranked as higher achieving, and those reporting mostly lower grades (mainly C's) as lower achieving. Achievement effects were found for scales with items concerning the perceived incidence of cheating, knowledge of various forms of cheating, student attributes related to cheating, and prevention of cheating. Table 2 provides means and standard deviations on scales of particular interest. No differences were noted for attribution of cheating to teacher or classroom characteristics or in the full scale (Scale IV) about preventing or reducing cheating.

Means for high achieving students were significantly higher on both the occurrence of cheating subscale, and the declarative

knowledge about cheating subscale; thus, higher achievers were consistently more likely to acknowledge more widespread cheating and a broader range of behaviors as cheating than were lower-achieving students. This achievement effect was also evident in the higher scores of the better students on items related to independent cheating behavior. In contrast, no achievement differences were noted on items related to cooperative cheating behavior, such as working out a signal system to share answers during an examination. Neither were achievement differences noted for items related to passive cheating, where the behavior in question is allowing another use of one's work.

Willingness to attribute cheating to selected student characteristics did, however, differ according to student achievement level. Again, higher achieving students obtained higher scores, indicating more agreement that characteristics such as poor planning of study time and effort avoidance are causal factors in cheating. Items about environmental circumstances of students, rather than personal characteristics, did not elicit significantly different responses according to achievement level.

As for cheating prevention, however, achievement level effects were linked specifically to strategies that alter the environment to prevent cheating--e.g., placing students in chairs spaced at some distance to prevent copying. A group of items about prevention by use of punishment was also more strongly endorsed by high achieving students, although higher achievers were significantly less willing

than were lower achieving students to endorse the efficacy of easing grade requirements.

Because gender effects were generally nonsignificant and showed no interactions with culture or achievement level, the statistical data are omitted here in deference to space restrictions. The only exceptions to a null hypothesis for gender involved Scale IIIA and two items from Scale IV, both showing higher mean scores for females. These exceptions meant that, as compared to males, females were somewhat more inclined to attribute student cheating behavior to teacher behavior such as disorganization and tough grading, and were more likely to agree that increasing the penalties and enforcing penalties consistently is effective in preventing or reducing cheating.

Discussion

As Berry (1980) has written, cross-cultural research can provide a test of generality, with the possibility of disclosing uniformities or consistencies, as well as differences across school-age populations in contrasting cultures. Results of the present study did not disappoint, as both strong similarities and stark contrasts were observed with U.S. and Costa Rican students showing the most pervasive accord about academic cheating issues. Because our results consistently distinguished the German students from these other two groups, the ensuing discussion is concerned primarily with speculation about cultural differences--secondarily with similarities. This

section concludes with a brief comment about the achievement level and gender variables. The essence of our argument is that differences for the German (Gymnasium) students are most likely a function of their educational system which, unlike the U.S. and Costa Rican approaches to public education, is structured more formally in qualitatively different tracks for students of differing academic ability and motivation.

With the foregoing in mind, two basic and associated hypotheses to account for difference in cognitions about the cheating phenomena are proposed. Hypothesis one (H_1) holds most simply that German students in this sample see cheating as a less serious problem because less cheating actually occurs in their schools. If so, issues about types, causes, and prevention of cheating would presumably be less salient throughout these students' educational experience and influence their cognitions accordingly. It is unfortunate that no independent data are available to establish the actual incidence of cheating in Gymnasium schools. The closest empirical evidence to bear on H_1 comes from a study of Austrian schools indicating that nearly 94% of students in grades 5-13 admitted to cheating (mostly Latin and mathematics) within the first three months of the school year (Hanisch, 1990). While this finding cannot be extrapolated to Germany, it is consistent with reports of American students and offers a teasing call for further research. Such research might also inform a secondary hypothesis that Gymnasium students cheat in much the same magnitude as

students in other countries, but are more defensive or biased by a social desirability response set in their self-reports.

Meanwhile, H_1 must remain a contending hypothesis until the matter of actual cheating rates is resolved empirically. If lower cheating rates are confirmed, further hypotheses about comparative ethical development and the management of cheating by German teachers could be relevant. But whether or not German students actually cheat less, the question of why they would reveal a different profile of thinking about cheating looms imminent. This question inspires our second main hypothesis about the cultural differences reported here--namely that academic cheating means something different to Gymnasium students as compared to their U.S. and Costa Rican age mates (H_2). Scale II data from the questionnaire are most directly relevant to this hypothesis. These data clearly revealed that German students were less likely to label a variety of school behaviors as cheating--possibly because social norms and, consequently, sanctions for cheating, are also different in German schools. Anecdotal experience gained during this study coupled with a careful analysis of Scale II data, including cultural similarities (see Table 4), contribute to our impression that a patterned conceptual difference resides mainly in Gymnasium students' more liberal view of passive cheating and helping other students achieve in ways that they may perceive more as cooperation than as moral transgression. In other words, some aspects of German students' cognitions and attitudes (and possible actual cheating) seem

similar to the other two groups, but certain forms of cheating, especially plagiarism and taking advantage of teacher errors in marking papers, were less clearly defined as rule-violating behavior.

The educational system in which German students are socialized seems implicated in these results, possibly as follows. Once admitted to Gymnasium, students only rarely may be placed to a lower track, completion rates are uniformly high, and completion virtually guarantees admittance to one or another reputable institution of higher learning at public expense. One by-product of this may be decreased individual competition and increased cooperation among students for reaching academic goals, thereby creating a liberalized climate for thinking about cheating.[1] Again, our data firmly suggest that Gymnasium students are less likely to think about disguised information sharing (even to the point of deceiving their teachers) as cheating per se. To extend the argument, if a more cooperative orientation to academics exists in Gymnasium schools, coupled with an evaluation system not as strongly driven by comparative achievement standards (as curve grading), we should expect the cheating issue to be less salient than, say, in typical American classrooms where students compete more individually for grades and where their work is carefully monitored by teachers as a result. Costa Rican students perceived their academic standards as very high, and strong pressure from parents to succeed in class. Many of these students indicated that cheating may be instigated by these factors, but that penalties

for doing so are high, thus requiring very skillful cheating. If cheating is relatively easier for German students to accomplish without negative sanctions, they may come to see it more in a gamelike context to express oppositional behavior in school (Hanisch, 1990). If successful at cheating as a classroom game, these students could have reason to doubt the value of teachers' strategies to prevent or reduce cheating--an attitude clearly suggested by the lower efficacy ratings (Scale IV) by Germans (see Table 3).

Assuming this more cooperative orientation in Gymnasium schools, indirect support for H_2 springs from the theory and research on cooperative learning in general (e.g., Slavin, 1983) and preliminary cross-cultural work that shows more direct reciprocity in moral reasoning about prosocial conflicts among Germans, as compared to American children (Eisenberg, Boehnke, Schuler, & Silberstein, 1985). Additionally, our Costa Rican students revealed a general tendency to rate clandestine information sharing as cheating somewhat less strongly than did U.S. students, although more strongly than did the Germans. This tendency merits mention because stronger cooperative orientations among Latin American students as compared to mainstream North American students have long been observed (Cook & Stingle, 1974). Only recently have the potential values of cooperation for learning been revived in American educational practices (Bossert, 1988-89). But this emphasis surely brings a challenge for educators to help their students discriminate between legitimate and

illegitimate means-ends relationships for cooperation, personal achievement, and intellectual integrity.

Aside from issues about cheating related to cooperation and competition, certain other attitudes or beliefs may require examination as well. For example, a link between students' attributional tendencies and their differences in orientation to cheating can be inferred from attribution theory and research. One recent study has shown that German children were more likely to attribute both achievement success and failure more to ability and luck and less to effort than were American children (Schneider, Borkowski, Kurtz, & Kerwin, 1986). If achievement differences are presumed to result mostly from ability (a stable characteristic) than from effort (a variable characteristic), students may be less concerned about the quality of effort to achieve and perhaps less concerned about the effects of cheating. This notion seems well suited for further empirical research.

Lest the foregoing cultural differences be over-dramatized, important similarities in concepts of cheating across the three samples for this study deserve attention. As exemplified by Table 4, these similarities suggested a strong convergence among subject groups in at least two ways. The first way reflects students' clear understanding that a premediated act of deceit that implies a shirking of academic responsibility is cheating. This understanding suggests broad uniformity in the development of cognitions about fairness

consistent with the literature on adolescents' reasoning about moral dilemmas and social convention in general (Nucci, 1982; Walker, 1989). Direct tests of any relationship between ideas or attitudes about cheating and more fundamental moral development, however, await future research along lines suggested elsewhere (Houston, 1983).

The second most convergence for similarities concerned causal attributions for cheating: strong tendencies among all students to identify incompetent instruction as an impetus to cheating. This theme has appeared consistently in our previous work with exclusively American students for which several related explanations have been offered. For example, incompetent teaching may have the effect of fostering student helplessness or failure-frustration, one result of which may be increased cheating (McLaughlin & Ross, 1989). Additionally, normative adolescent conflicts (e.g., authority relations and autonomy-dependency) and egocentric tendencies could contribute to rationalizations about cheating. That is, externalizing blame to teachers for "causing" cheating may temper self-condemnation for violating trust, thus constituting a defensive means for preserving self-esteem. Similarly, still further attributional work has revealed that external attributions can provide students with an excuse for cheating and may function to limit self-concept after misconduct (Forsyth, Pope, and McMillan, 1985).

A final point of discussion here concerns the mediating variables of achievement status and gender. Neither variable interacted with

culture or with each other, again reinforcing our earlier work with exclusively American students. That more able (higher achieving) students were both more perceptive and knowledgeable about academic cheating--especially their peers' personal circumstances as a factor in explaining deviant behavior--is consistent with predictions from human intelligence theory (Kaufman & Flaitz, 1987). Also consistent with our previous work, gender effects were generally absent in this study. The most notable challenge to a null hypothesis for a link between gender and cognitions about cheating was a newly observed, significantly stronger endorsement of punishment as an effective means to control or prevent cheating among females across all three groups. One tentative explanation for this finding springs from motivational theory and research indicating that, as compared to males, females are more often sensitive to or concerned about their interpersonal relationships, including teachers, with harmonious relationships serving as an important source of self-esteem (Douvan & Adelson, 1966). If so, cheating may be viewed as placing a person at high risk for maintaining positive personal-social relationships. A belief that punishment should serve as a greater deterrent to academic dishonesty is compatible with this motivational dynamic. Both gender and ethnic differences are further suggested by Calabrese and Cochran's (1990) study of cheating in American high schools. Females and Asian students, although less likely to cheat, showed stronger tendencies to do so if they were helping others to succeed. In contrast, White

males were more likely to cheat for personal success. Further research--focused specifically on possible gender-related links between motivation and cognitions in the domain of academic dishonesty, particularly in school contexts marked by different reward structures--seems justified by such reports.

In summary, the present study has provided both original findings and provocative cues for continued cross-cultural study. Consistent differences in the way adolescents think about academic cheating have been observed, with German students most clearly distinct from their U.S. and Costa Rican counterparts. Reasons for these differences remain speculative, but can be rationalized partly in terms of the German educational system. Modest differences in cheating cognitions and attributions associated with achievement status and, to a much lesser extent, gender, were also observed independent of culture. Based on present and related findings, further research involving English, Spanish, and German-speaking contexts is recommended, with special attention to school type (e.g., public, private), administrative policy (e.g., tracking-no tracking), and goal structures (e.g., cooperative-competitive) to clarify the relationship between school and ethics in academic development.

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References

Antion, D. L., & Michael, W. B. (1983). Short term predictive validity of demographic, affective, personal, and cognitive variables in relation to two criterion measures of cheating behavior. Educational and Psychological Measurement, 43, 467-482.

Baldares, M. J. (1985). Costa Rica: System of education. In T. Husen and T. N. Portlethwaite (Eds.), The international encyclopedia of education (Vol. 2, 1056-1058). New York: Permagon.

Bear, C. C., & Stewart, M. (1990). Early adolescents' acceptability of intervention: Influence of problem severity, gender, and moral development. Journal of Early Adolescence, 10, 191-208.

Berman, J. J., Murphy-Berman, V., & Singhy, P. (1985). Cross-cultural similarities and differences in perceptions of fairness. Journal of Cross-Cultural Psychology, 16, 55-67.

Berry, J. W. (1980). Introduction to methodology. In H. C. Triandis & J. W. Berry (Eds.), Handbook of cross-cultural psychology, Vol. 2: Methodology. Boston: Allyn and Bacon.

Bossert, S. T. (1988-89). Cooperative activities in the classroom. In E Z. Rothkopf (Ed.), Review of research in education. Washington, D.C.: American Educational Research Association.

Boyer, E. L. (Ed.). (1989). The condition of the professoriate: Attitudes and trends. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Brislin, R. W. (1980). Translation and content analysis of oral and written materials. In H. C. Triandis & J. W. Berry (Eds.), Handbook of cross-cultural psychlogy: Methodology (Vol. II). Boston: Allyn and Bacon.

Bushway, A., & Nash, W. R. (1977). School cheating behavior. Review of Educational Research, 47(4), 623-632.

Caamano, C. A. (1977). Republic of Costa Rica. In A. S. Knowles (Ed.), The international encyclopedia of higher education (Vol. 3). San Francisco: Jossey-Bass, 1095-1101.

Calabrese, R. L., & Cochran, J. T. (1990). The relationship of alienation to cheating among a sample of American adolescents. Journal of Research and Development in Education, 23(2), 66-72.

Comber, L. C., & Keeves, J. (1973). Science achievement in nineteen countries. New York: Wiley.

Cook, H., & Stingle, S. (1974). Cooperative behavior in children. Psychological Bulletin, 81, 918-933.

Coughlin, E. K. (1988). Psychologist sentenced for giving false data to federal government. The Chronicle of Higher Education, 35(14), A5.

Deutsch, C. H. (1988, April). Cheating: Alive and flourishing. New York Times Educational Supplement, 137, 25-29.

Douvan, E., & Adelson, J. (1966). The adolescent experience. New York: Wiley.

Eisenberg, N., Boehnke, K., Schuler, P., & Silberstein, R. K. (1985). The development of prosocial behavior and cognition in German children. Journal of Cross-Cultural Psychology, 16, 69-82.

Enker, M. S. (1987). Attitude and normative variables as predictors of cheating behavior. Journal of Cross-Cultural Psychology, 18, 315-330.

Evans, E. D., & Craig, D. (1990a). Adolescent cognition for academic cheating as a function of grade level and achievement status. Journal of Adolescent Research, 5, 325-345.

Evans, E. D., & Craig, D. (1990b). Teacher and student perception of academic cheating in middle and senior high schools. Journal of Educational Research, 84, 44-52.

Forsyth, D. R., Pope, W. R., & McMillan, J. H. (1985). Students' reactions after cheating: An attributional analysis. Contemporary Educational Psychology, 10, 72-82.

Haines, V. J., Diekhoff, C. M., La Beff, E. E., & Clark, R. E. (1986). College cheating: Immaturity, lack of commitment, and the neutralizing attitude. Research in Higher Education, 25, 342-354.

Hamilton, S. F. (1990). Apprenticeship for adulthood: Preparing youth for the future. New York: Free Press.

Hanisch, G. (1990). Schummeln Ergebnisse einer Befragung von Wiener Schuelerinnen und Schuelern. Wien, Oesterrich: Ludwig Boltzmann-Institute für Schulentwicklung und international-vergleichende Schulforschung.

Hartshorne, H., & May, M. A. (1928). Studies in deceit. New York: Macmillan.

Huston, J. P. (1983). Kohlberg-type moral instruction and cheating behavior. College Student Journal, 17, 196-204.

Kanfer, F. H., & Duerfeldt, P. H. (1968). Age, class standing, and commitment as determinants of cheating in children. Child Development, 39, 545-57.

Karlins, M., Michaels, C., Frielunger, P., & Walker, H. (1989). Sex differences in academic dishonesty: College cheating in a management course. Journal of Education for Business, 65, 31-33.

Kaufman, A. S., & Flaitz, J. (1987). Intellectual growth. In V. B. Van Hasselt & M. Hersen (Eds.), Handbok of adolescent psychology (pp. 205-226). New York: Permagon Press.

Leo, J. (1988). The crimson copycat. U.S. News and World Report, December 12, p. 90.

Lonner, W. J. (1980). A decade of cross-cultural psychology: JCCP, 1970-1979. Journal of Cross-Cultural Psychology, 11, 7-34.

McLaughlin, R. D., & Ross, S. M. (1989, February/March). Student cheating in high school: A case for moral reasoning vs. "fuzzy logic." High School Journal, pp. 97-104.

Mietzel, G., Ruessmann-Stoehr, C., & Mason, E. (1987). School psychology in the Federal Republic of Germany. Journal of School Psychology, 25, 255-265.

Nucci, L. (1982). Conceptual development in the moral and conventional domain: Implications for values education. Review of Educational Research, 48, 93-122.

Power, F. C., Higgins, A., & Kohlberg, L. (1989). Lawrence Kohlberg's approach to moral education. New York: Columbia University Press.

Sarason, S. B. (1983). Schooling in America. New York: Free Press.

Schab, F. (1969). Cheating in high school: Differences between the sexes. Journal of the National Association of Women Deans and Counselors, 33, 39-42.

Schneider, W. Borkowski, J. G., Kurtz, R. E., & Kerwin, K. (1986). Metamemory and maturation: A comparison of strategy use and performance in German and American children. Journal of Cross-Cultural Psychology, 17, 315-336.

Slavin, R. E. (1983). Cooperative learning. New York: Longman.

Seattle Times. (1990, November 23). Study by Rutgers professor shows cheating comes almost naturally, p. 6.

Tomlinson, T. M., & Walberg, H. J. (Eds.). (1966). Academic work and educational excellence. Berkeley: McCutchan.

Vartabedian, R. (1990). Pentagon urged to ban Northrop: Defense contractor's guilty plea to fraud charges cited. The Seattle Times, July 27, 1990, p. B-2.

Weiner, B. (1974). Achievement motivation and attribution theory. Morristown, NJ: General Learning Press.

Wimer, S., & Kelley, H. H. (1982). An investigation of the dimensions of casual attribution. Journal of Personal and Social Psychology, 43, 1142-1162.

Footnotes

[1]This climate could inadvertently be reinforced by authority figures (parents and teachers) who, according to our informal sources in Germany, may take a comparatively soft stance about cheating, even to the point of chatting with adolescents about their own school cheating behavior. In fact, German students were significantly less likely than Costa Rican and U.S. students to agree that their teachers are careful to discourage and explain rules about cheating in class.

Table 1

Means and Standard Deviations for Culture Effect

	Costa Rica		Germany		United States		F	Signif.
	$\bar{X}$	S.D.	$\bar{X}$	S.D.	$\bar{X}$	S.D.	Values	of F
Scale I	51.66	(7.84)	44.31	(5.71)	50.66	(5.47)	31.5	.000
Sub IA(1-5)	18.41	(3.49)	14.01	(3.50)	17.83	(3.16)	39.5	.000
Sub IE(13-16)	10.59	(3.23)	8.89	(1.93)	10.26	(2.32)	10.2	.000
Scale II	74.57	(10.23)	61.71	(8.61)	78.05	(9.16)	64.9	.000
Sub IIA*	32.15	(4.33)	27.21	(4.33)	34.60	(4.12)	56.1	.000
Sub IIB*	33.15	(5.28)	26.17	(4.21)	32.83	(4.78)	52.8	.000
Scale IIIA	35.69	(4.74)	34.10	(5.83)	36.97	(4.69)	5.5	.005
Scale IIIB	34.20	(4.71)	31.55	(4.03)	35.94	(4.42)	21.2	.000
Scale IIIC	67.43	(10.11)	59.53	(10.17)	70.16	(8.79)	21.5	.000
Scale IIICP*	44.59	(6.95)	39.25	(7.05)	44.69	(5.75)	14.7	.000
Scale IIICC*	23.26	(4.42)	20.37	(4.58)	25.46	(4.25)	22.7	.000
Scale IV	87.87	(12.91)	73.45	(11.49)	87.43	(9.79)	41.7	.000

* Sub IIA was items related to shared effort; SubIIB was items related to independent action; Scale IIICP was items related to students personal characteristics; Scale IIICC was items related to student circumstances.

Table 2

Means and Standard Deviations for Achievement Effect

	Lower achieve	Higher achieve	Signif of F
Scale I	46.38 (7.41)	51.07 (6.48)	ns
Sub IA*	15.45 (4.10)	18.11 (3.29)	.000
Scale II	65.47 (10.56)	74.37 (10.09)	.001
Sub IIB*	27.98 (5.34)	32.01 (5.46)	.003
Scale IIIA	34.61 (5.91)	36.05 (4.98)	ns
Scale IIIB	32.58 (4.40)	34.54 (4.87)	ns
Scale IIIC	61.57 (10.78)	67.98 (10.16)	.004
Sub IIIC*	40.21 (7.09)	44.11 (6.71)	.002
Scale IV	77.89 (13.59)	85.55 (11.61)	ns

I SubIA contains items related to incidence of cheating in subject's school; SubIIB contains items related to independent cheating behavior; SubIIICP contains items related to personal traits of students who cheat.

Table 3

Representative Items About Academic Cheating Showing Strong Dissimilarity Across Eleventh Grade Students in Three Cultural Groups

	Percentage Agreement[a]		
Scale (item)	Costa Rica	Germany	US
II. Cheating is:			
(21) Examining a copy of old test that the teacher does not want you to see because it is just like the one you will soon be taking.	80	22	92
(27) Hiding or not reporting a mistake in a teacher's test scoring that results in a higher grade than you deserve.	59	04	46
(36) Listing books or articles that you didn't read in the bibliography for a class paper.	61	23	81
(37) Allowing another student to use class paper you have written to get credit for their class.	77	31	87
(39) Letting another student copy answers from your homework paper	82	39	86

Continued.....

Table 3 (Continued)

Scale (item)	Percentage Agreement[a] Costa Rica	Germany	US
III. Cheating is more likely to occur:			
(A) in class where the teacher:			
(41) is unfriendly to students	50	25	58
(42) boring or dull	68	37	76
(B) in classes:			
(58) where the penalties for cheating are not made clear.	64	35	80
(C) among students:			
(63) that are involved in many extra school activities	38	07	41
(67) Who don't know about or understand rules against cheating.	40	15	46
(72) have friends who also cheat.	72	33	82
IV. Cheating can be prevented or discouraged by:			
(80) placing tighter control over tests so that students cannot see them beforehand.	80	38	82
(93) explaining in detail what will happen if cheating takes place.	55	34	65

Continued.....

Table 3 (Continued)

Scale (item)	Percentage Agreement[a]		
	Costa Rica	Germany	US
(94) giving exams during class only (no take-home exams).	70	26	58
(97) requiring students to show their outlines and rough drafts of papers before handing in a final draft for grading.	68	31	77
(99) giving a different, but equal, makeup test for any students who misses a regular exam.	81	55	92
(102) using different versions or forms for a test so there can be no copying during the exam.	79	58	90
(105) creating a way for students to report cheating without being identified as a snitch.	43	06	53

[a]Percentages are rounded to the nearest full number for ease of reporting.

Table 4

Representative Items about Academic Cheating Showing Strong Accord Across Eleventh-Grade Students in Three Cultural Groups

Scale (item)	Percentage Agreement[a] Costa Rica	Germany	US
II. Cheating is:			
(17) using secret notes during an examination that you're not supposed to have.	97	97	98
(19) copying answers directly from another student's test paper.	99	98	99
(29) handing in as your own work an assignment done by someone else.	93	98	92
(33) copying other students' assignments to turn in as your own work.	93	90	92
III. Cheating is more likely to take place:			
(A) in classes where the teacher:			
(43) is disorganized	83	79	97
(45) takes no steps to prevent cheating	85	86	91
(47) is hard to understand	84	81	93
(48) is not very available to students who seek help.	83	76	84

Continued....

Table 4 (Continued)

Scale (item)	Percentage Agreement[a]		
	Costa Rica	Germany	US
(B) in classes where:			
(51) the material is difficult and requires careful study.	97	83	83
(52) a large amount of material is covered.	83	94	91
(C) among students who:			
(65) don't feel like making the effort. required for good study.	82	75	92
(69) are afraid of what will happen if they fail or do poorly in class.	71	87	92

[a]Percentages are rounded out to the nearest full number for ease of reporting.

(Fig. 1)

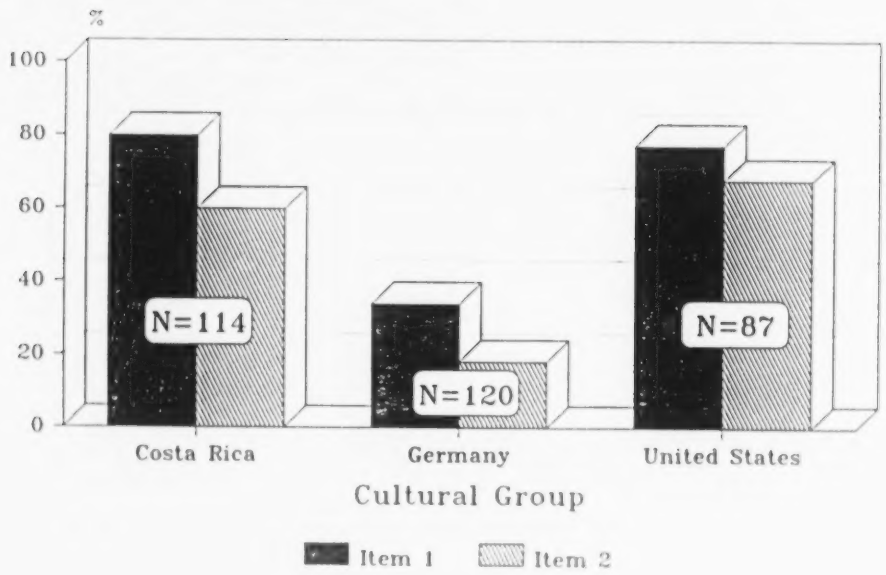
%
100
80
60
40
20
0
N=114
N=120
N=87
Costa Rica
Germany
United States
Cultural Group
Item 1
Item 2

Figure Caption

Fig. 1. Percentage of 11th Grade Students in Three Cultural Groups Who Agree About Cheating as a Serious School Problem*

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*Item 1 Agreement that: "Cheating is a serious problem at the high school (gymnasium) level."

Item 2 Agreement that: "Cheating happens far too much in my school."